

KOROBOV, A.M.

KOROBOV, A.M., starshiy prepodavatel', kandidat tekhnicheskikh nauk.

Effect of water-binder ratio and water heat treatment on the  
durability of lime-bergmeal mixtures. Trudy LPI 33:157-170 '56.  
(Cement) (SILBA 10:9)

L 8832-66 EWT(1)/EWA(j)/EWA(b)-2 JK  
ACC NR: AT5027531

SOURCE CODE: UR/0000/63/000/000/0071/00823/ B+1

AUTHOR: Korobov, A. M. 44,5

ORG: None

TITLE: Detoxification of purified and concentrated tetanus toxin 6.44,55

SOURCE: Moscow, Nauchno-issledovatel'skiy institut vaktsin i syvorotok. Vaktsiny i syvorotki; materialy po proizvodstvu, no. 1, 1963. 44,5

71-82  
TOPIC TAGS: toxicology, bacterial disease, antigen, chemical purity, solution concentration

ABSTRACT: Optimal conditions for detoxification of purified and concentrated tetanus toxins were investigated. It was found that native tetanus cultures treated with formalin (0.4%) for 24 hrs at 35° reduces culture toxicity by 99%, it is not restored in the purification and concentration processes, and the antigenic properties are not affected. Purified and concentrated tetanus toxins isolated from native tetanus cultures or formalin treated tetanus cultures are completely detoxified in 10 days with the addition of 0.2% formaldehyde and the maintenance of a 38° temperature and a 7.2 to 7.3 pH during the 10 day period. Detoxification results for purified and concentrated

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ACC NR: AT5027531

toxins isolated from the formalin treated tetanus cultures proved to be more stable. Orig. art. has: 6 tables.

SUB CODE: 06, 07/ SUBM DATE: 31Aug63/ ORIG REF: 005/ OTH REF: 004

BVN

Card 2/2

KOROBov, A.M. kand.tekhn.nauk

Opoka and lime adhesives for building mortars and concretes. Trudy  
NPI 74:27-39 '59. (MIRA 14:3)

1. Kafedra stroitel'nogo proizvodstva Novoherkasskogo politekh-  
nicheskogo instituta.  
(Mortar) (Cement)

KOROBV, A.M.

Investigation of gypseous gravel and technological systems  
of enriching it. Trudy NPI 145:13-20 '64.

(MIRA 18:12)

ASHMARIN, I.P.; KOROBOV, A.M.

Statistical processing of the results of control determinations of the immunogenicity of tetanus anatoxin. Zhur. mikro-biol., epid. i immun. 33 no.11:100-106 N '62.

(MIRA 17:1)

KOPIN, I. I. KOROBV A. M.

Obtained in 1962 and high culture medium for producing tetanus  
antitoxin. Vol. 1. 1962. 100-100 162.

(MIRA 1818)

NERISOV, A.M.

Detoxication of purified and concentrated botulin toxin. Vak. 3  
Sov. no. 2:71-82 '69.

(MIRA 18:3)



KOROBV, A.M.

Lightweight types of concrete based on a diatomite-lime binding material and local aggregates. Trudy MPI 125:19-28 '61.

(Lightweight concrete)

(MIRA 15:7)

VOROB'YEV, A.A.; KOROBOV, A.M.; POYARKOVA, M.A.; KORNEV, I.S.;  
ANDROSHCHUK, S.M.; prinalni uchastiye: MORLUYEVA, A.A.; IGONINA,  
Yu.A.; CHERNOVA, Yu.S.; NIKOLAYENKO, Yu.P.; MAKAROVA, V.A.

Method for preparing sorbed tetanus anatoxin from a purified and  
concentrated toxin. Zhur.mikrobiol., epid.i immun. 33 no.8:107-112  
Ag '62. (MIRA 15:10)

(TOXINS AND ANTITOXINS) (TETANUS)

KOROBV, A. P., Cand Agr Sci -- (diss) "Free-mineral supplements for large cattle." Khar'kov, 1960. 18 pp; (Ministry of Agriculture Ukrainian SSR, Khar'kov Zooveterinary Inst); 200 copies; free; (KL, 28-60, 162)

KOROBOV, A. P.

Calculation of Supports of Step-Shape Form, Loaded Along the Boundaries of the Steps With Longitudinal and Transverse Forces and Concentrated Bending Moments

The author derives a general expression for the deflection on an arbitrary segment of a step-shaped beam. It is expressed as the sum of four functions. The author cites two examples in which he calculates the ordinates of the elastic line, bending moments and stresses, and the critical load for a support fastened at its lower end and loaded in three sections with centrally applied forces. (RZhMekh, No. 6, 1955) Issled. po Teorii Sooruzheniy, No. 6, 1954, 61-70.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

KOROBV, A.S.

Landscape and gardening experience at the All-Union Agricultural Exhibition. Gor.khoz.Mosk. 28 no.8:10-13 Ag '54.  
(MLRA 7:9)

1. Glavnyy arkhitekt orseleniya Vsesoyuznoy sel'skokhozyaystvennoy vystavki.  
(Moscow--Agricultural exhibitions) (Agricultural exhibitions--Moscow) (Landscape architecture).

KOROBOV, A.S.

KOVUN, P.K.; NEVZOROV, A.P.; ANTONENKO, G.P.; BUDINA, L.V.; VORONINA, Ye.P.; GUSEV, P.I.; YELAGIN, M.N.; ZHURAVLEV, M.A.; ZALOZNYI, K.D.; KOMKOV, V.N.; KOROBOV, A.S.; KORCHAGIN, V.N.; LAVROV, V.N.; LAPSHINA, O.V.; LUTIKOV, I.Ye.; MAKEVIN, A.Ya.; MOROZOVA, F.I.; NEVZOROV, A.P.; PONOMARCHUK, M.K.; PUCHKOV, A.M.; RAZMOLOGOVA, A.M.; RUBIN, S.M.; SELEZNEVA, O.V.; SEMENOVA, F.I.; SPIRIDONOVA, A.I.; SUSHCHEVSKIY, M.G.; USOV, M.P.; TARKOVSKIY, M.I.; CHENYKAYEVA, Ye.A.; SHENDRIKOV, G.L.; SHULGIN, G.T.; TSITSIN, N.V., akademik, redaktor; REVENKOVA, A.I., redaktor; KHOKHRINA, N.M., khudeshchestvennyy redaktor; VESKOVA, Ye.I., tekhnicheskiiy redaktor; PEVZNER, B.I., tekhnicheskiiy redaktor.

[Plant breeding at the 1955 All-Union Agricultural Exhibition] Rasteniyevodstvo na Vsesoiuznoi sel'skokhoziaistvennoi vystavke 1955 goda. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956. 687 p. (MLA 10:4)  
(Moscow--Plant breeding--Exhibitions)

PANOV, I.V.; ANTONINOV, V.N.; SOKOLOV, D.D.; ZAGUMENNYI, V.V.;  
CHEREPNIN, S.V.; OBYDENNYI, P.T.; KOROBOK, A.S., red.;  
KOMONOV, A.S., red. izd-va; KHENOKH, F.M., tekhn. red.

[Provisional technical specifications for planning landscaping operations] Vremennye tekhnicheskie usloviia na proektirovanie rabot po ozeleneniiu. Uтверждены приказом по Министерству коммунального хозяйства РСФСР No.233 от 20 октября 1961. Изд-во М-ва коммуна.хоз.РСФСР, 1962. 147 p. (MIRA 15:8)

1. Gosudarstvennyi institut po proyektirovaniyu kommunal'nogo stroitel'stva.

(Landscape gardening)

*KOROBOW, A.V.*

MALIN, V.M.; KOROBOW, A.V.; DANILINA, A., tekhn.red.

[Directives of the Communist Party of the Soviet Union and the  
Soviet Government concerning economic problems, 1917-1957]  
Direktivy KPSS i Sovetskogo pravitel'stva po khoziaistvennym  
voprosam, 1917-1957 gody. Moskva, Gos. izd-vo polit. lit-ry.  
Vol.3. (1946-1952 gody). 1958. 703 p. (MIRA 11:5)

1. Russia (1923- U.S.S.R.) Laws, statutes, etc.  
(Russia—Economic policy)



KOROBV, A.V.; NIKOLAYENKO, M.R.

Producing welded piping blocks in plants for thermal electric  
power stations. Biul. tekhn.-ekon. inform. Gos. nauch.-issl.  
inst. nauch. i tekhn. inform. 18 no.3:35-36 Mr '65. (MIRA 18:5)

KOROBV, A. V.

"National economic planning experience of the USSR"

report to be submitted for the United Nations Conference on the  
Application of Science and Technology for the Benefit of the Less  
Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

KOROBov, A.V., minister SSSR

Geography and economy. Izv. AN SSSR Ser. geog. no. 43-11 '64  
(MIRA 17:8\*)

1. Gosplan SSSR.

KOROBov, B. F.

"Investigation of the Operational Process of a Two-Cycle Aviation Diesel Engine."  
Thesis for degree of Cand. Technical Sci. Sub 14 Feb 49, Moscow Order of Lenin  
Aviation Inst imeni Sergo Ordzhonikidze.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering  
In Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

*Korobov, B. F.*

AUTHORS: Korobov, B. F., and Komarov, B. I. 65-58-4-9/12

TITLE: Evaluation of the Stability of Kerosene Type Fuels by Pumping Through Fuel Pumps of Turbojet Engines  
(Otsenka stabil'nosti topliva tipa kerosina prokachkov cherez toplivnyye nasosy turboreaktivnogo dvigatelya)

PERIODICAL: Khimiya i Tekhnologiya Topliva i Masel, 1958, No. 4, pp 51 - 54 (USSR)

ABSTRACT: A method for the evaluation of the stability of kerosene fuels was developed by VNII NP, by pumping the fuel through a turbo jet engine. Several laboratory methods are known for evaluating the stability of kerosene type fuels; however, these are unsatisfactory because they are carried out under static conditions which differ considerably from the conditions existing in an actual heating system. A scheme of the testing device is given in a diagram on page 53. The samples of the fuel are tested on this device and in a thermostat. 60 litre of fuel are poured into a test apparatus and pumped by circulation in eight stages at a temperature of 50°C; each stage is divided into two half-hour stages with a sufficiently long interval between the half stages to allow the fuel to be cooled to the temperature of the surrounding medium. The

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65-58-4-9/12

Evaluation of the Stability of Kerosene Type Fuels by Pumping Through Fuel Pumps of Turbojet Engines

fuel is changed every eight hours, and the input is 1500 liters during the whole time of the investigation (25 stages). During the intervals between the stages (5 - 7 days) the pumps are kept at a temperature of 40°C in a thermostat. After 50, 100 and 200 hours of the experiment, the pumps are partly dismantled and inspected to determine whether any deposits have formed on the parts of the test apparatus. When pumping kerosene fuel for 50 - 100 hours, tar deposits are formed on the surface of parts of an apparatus made from antimony bronze VB-24, but no changes were observed on parts made from aluminium bronze BrAZhN10-4-4. VNII NP together with VIAM (Ref.1) developed types of bronze of modified composition which showed decreased catalytic action e.g. antimony bronze BB-24N. Comparative tests were carried out with kerosene fuel on pumps made of three types of alloys on a copper basis; aluminium,

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65-58-4-9/12

Evaluation of the Stability of Kerosene Type Fuels by Pumping  
Through Fuel Pumps of Turbojet Engines

antimony and antimony - nickel bronze. Results obtained on these three types of bronze after fifty-hour tests are compared. VNII NP also carried out parallel experiments with various types of anti-oxidants. Satisfactory results were obtained when adding p-oxydiphenylamine. These experiments were carried out over a period of 200 hours (six months). There is 1 Figure, 1 Russian Reference.

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1. Jet engine fuels-Stability-Test results
2. Antioxidants-Test results
3. Bronze alloys-Effects of fuels-Test results

S/081/61/000/020/084/089  
B110/B147

**AUTHORS:** Nikolayev, V. G., Korobov, B. F., Dukhnina, A. Ya.  
**TITLE:** Problem of producing liquid fuel for gas-turbine plants  
**PERIODICAL:** Referativnyy zhurnal. Khimiya, no. 20, 1961, 409-410,  
abstract 20M148 ([Tr.] Groznensk. neft. in-t, sb. 23, 1960,  
53-64).  
**TEXT:** The results of a study on the production of inexpensive mass  
products of liquid fuel for gas-turbine plants are presented.  
[Abstracter's note: Complete translation.]

Card 1/1

34616  
S/065/62/000/003/002/004  
E075/E135

11.0132  
**AUTHORS:** Nikolayeva, V.G., Dukhnina, A.Ya., Korobov, B.F.,  
Maslova, O.I., Levinson, G.I., and Perchenko, A.A.  
**TITLE:** Preparation of gas-turbine fuels from coking  
distillates  
**PERIODICAL:** Khimiya i tekhnologiya topliv i masel, no.3, 1962,  
20-22

**TEXT:** One of the objects of the authors' work was to  
obtain gas-turbine fuels from the coking distillates. Conditions  
for the preparation of the experimental samples of the fuels from  
coking distillates were developed by VNII NP. The samples were  
prepared by the method of contact coking and the method of  
retarded coking. The raw material for the samples was a cracking  
residue from sulphur containing crudes. The vanadium content of  
the fuels was less than 0.001%, sulphur content about 2.5%, ash  
not more than 0.01%. The fuels were subjected to thermal  
stability testing at 150 °C for 6 hours with the circulation of  
air at the rate of 3 l/hour for 100 g of fuel. The fuels were  
also heated at 60 °C for 300 hours. After the testing the

Card (1/2)



12451

5/150/000/000/000/011

AUTHORS: Nikolayeva, V.G., Korobov, B.F., Dukamina, A.Ya., Candidates of Technical Sciences; Maslova, O.I., Engineer.

TITLE: The making of gas-turbine fuels from Eastern sulfur-containing crudes.

SOURCE: *Bor'ba s korrozivny dvigateley vnutrennego sgeraniya i gazoturbinykh ustanovok. Vses. sovet nauchn.-tekhn. obshchestva*. Moscow: Mashgiz, 1962, 172-181.

TEXT: The economics of the employment of gas turbines, with their high s.f.c., is contingent on the availability of inexpensive fuels. Most endeavors in the production of gas-turbine fuels, in the USSR as well as abroad, have tended toward the utilization of secondary distillates and residual petroleum products and have, therefore, encountered difficulties arising from the high ash content. The basic requirement is an upper limit to their V content (no more than 0.001%). Other specifications established by 7 major Soviet specification-making agencies relative to ash, V, Na, and E content, viscosity, and congelation point are tabulated. Distillates, usually, contain insignificant amounts of V; residues of low-S crudes, such as G-12 (E-12), are low in V, but sulfurous bunker oil BC-5 (E-5) and the sulfurous boiler fuel oils B-10, -60, and -80, contain as much as 10 times the tolerable

Card 1/4



NIKOLAYEVA, V.G.; DUKHNINA, A.Ya.; KOROBOV, B.F.; MASLOVA, O.I.;  
LEVINSON, G.I.; PERCHENKO, A.A.; Primal uchastiye  
SHCHEKOL'TSOVA, M.A., inzh.

Production of gas turbine fuels from coking distillates.  
Khim. i tekhn. topl. i masel 7 no 3:20-22 Mr '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po  
pererabotke nefi i gaza i polucheniyu iskusstvennogo  
zhidkogo topliva.

(Petroleum as fuel)

PHASE I BOOK EXPLOITATION

SOV/6388

Gavrilenko, Ye. T., N. M. Konoplya, B. V. Korobov, and G. L. Livshin  
 Programirovaniye dlya elektronnoy vychislitel'noy mashiny "Ural-1"  
 (Programming for the Electronic Computer "Ural-1") Moscow, Mashgiz,  
 1962. 295 p. 8200 copies printed.

Reviewer: G. A. Kutukova; Ed.: V. G. Sragovich, Candidate of  
 Physical and Mathematical Sciences; Ed. of Publishing House:  
 A. G. Akimova; Tech. Ed.: L. P. Gordeyeva; Managing Ed. for  
 Literature on Means of Automation and Instrument Construction:  
 N. V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for engineers and technicians working  
 in computing centers, scientific-research institutes, and those  
 enterprises utilizing universal computers. It may also be useful  
 to students at schools of higher learning in their study of electron  
 computers and programming.

Card 1/10

Programming for the (Cont.)

SOV/6388

COVERAGE: Number systems utilized in computers, number and command  
 representation in the "Ural-1" computer, as well as command  
 systems of "Ural"-type machines are described. Fundamentals of  
 programming and of program debugging are given. The system of  
 standard subprograms of the "Ural-1" computer is discussed, and  
 the examples of programming procedure as well as brief charac-  
 teristics of the "Ural-1" and "Ural-2" computers are given. No  
 personalities are mentioned. There are 11 references, all Soviet.

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Foreword

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Ch. I. Number Systems. Code Representation and Rules For the  
 Completion of Arithmetical Operations

1. Number systems

7

2. Transfer from one number system to another

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9

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L 25582-66 EWI(d)/T/ENP(1) IJP(c) BB/GG  
ACC NR: AM6004768 Monograph

UR/

62  
59  
B+1

Bogomolcv, Anatoliy Mikhaylovich; Korobov, Boris Vladimirovich

Programming for "Ural-2" and "Ural-4" electronic computers (Programmirovaniye dlya EVM "Ural-2" i "Ural-4") Saratov, Izd-vo Saratovskogo univ., 1965. 482 p. illus., Errata slip inserted. 3,500 copies printed

TOPIC TAGS: digital computer, computer technique, computer input unit, computer programming

PURPOSE AND COVERAGE: The book describes the most widely used Soviet electronic computers "Ural-2" and "Ural-4" and their programming. It is based on work done on the "Ural-2" computer at the programming division of the Computer Center of the Saratov State University. Particular attention is paid to the use of punched cards as bearers of the initial information. The book deals with the construction and operation of the individual units, the representation of the numbers and commands, the command system, programming with punched-card and punched-tape input, programming systems based on the use of standard subroutines, and proofing methods. A specialized method for solving polynomials of one variable, and a specialized interpreting system for calculations with complex numbers, an index programming system for solving problems with complex multiple-step indexation, linear-algebraic compilation, and various standard programs are also described. The authors thank K. I. Barbashova, YE. S. Selivestrova, E. M. Mametov, V. S. Zyuzin, V. M. Gur'yanov, YU. M. Kogtev, I. D. Morozova, N. A. Osen'kina, R. L. Rozhkova, V. V. Amel'chenko, D. V. Speranskiy,

Card 1/3

L 25582-66

ACC NR: AM6004768

3

V. R. Kardashov, YU. P. Tokarev, and V. L. Temkin for participating in the work. Chs. I--VII were written by B. V. Korobov, Chs. VIII--XIII by A. M. Bogomolov, and Ch. X was written jointly. The second part of the book, which contains a set of programs for numerical methods, is scheduled to be published in 1965.

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ACC NR: AM6004768

Sec. IV. Standard stored programs - - 409

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SUB CODE: 09/12/ SUBM DATE: 18Mar65

Card 3/3 dda

BOGOMOLOV, Anatoliy Mikhaylovich; KOROBOV, Boris Vladimirovich;  
VINNIKOVA, I.A., red.

[Programming for the "Ural-2" and "Ural-4" digital computer]  
Programmirovaniye dlia EVM "Ural-2" i "Ural-4". Saratov, Izd-  
vo Saratovskogo univ., 1965. 482 p. (Klma 18:10)



L 62097-65 EWT(1)/EEC-4/EEC(t)/EEC(b)-2/EEC-2/FCS(k) Pa-4/Pac-4/Pi-4/Pj-4/Pi-4  
 ACCESSION NR: AP5016730 UR/0286/65/000/010/0045/0045  
 621.396.679.4 46  
 B  
 AUTHOR: Mamayev, V. M.; Korobov, D. D.; Minkin, A. D.  
 TITLE: Method of electrical control of the beam of an antenna array. Class 21,  
 No. 171034 25B  
 SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 45  
 TOPIC TAGS: antenna array, array beam control, beam control, waveguide antenna  
 ABSTRACT: With the proposed method, electrical control of the beam is realized by phase commutation of the hf radiators. To ensure reliable scanning by an array with an increased number of radiators, commutation is determined on the basis of the length of the switching interval according to the formula  $A - B - C \sin \alpha$ , where B and C are constant values for each specific antenna and  $\alpha$  is the slope of the cophase front of the beam in relation to the plane of the array. The radiators are fed both in parallel and in series by the waveguide along which they are located. [DW]  
 ASSOCIATION: Organizatsiya gosudarstvennogo komiteta, po radioelektronike SSSR  
 (Organization of the State Committee on Radio Electronics, SSSR)  
 Card 1/2

L 62097-65

ACCESSION NR: AP5016730

SUBMITTED: 19Jun64

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4039

*llc*  
Card 2/2

KOROBov, D.M. (Krasnodar)

Changes in the blood in acute lupus erythematosus. Klin.med.  
37 no.8:125-130 Ag '59. (MIRA 12:11)

1. Iz kafedry propedeviki vnutrennikh bolezney (ispolnyayushchiy  
obyazannosti zav. - dots. D.M.Korobov) Kubanskogo meditsinskogo  
instituta (dir. - prof. V.K.Suprunov).  
(LUPUS ERYTHEMATOSUS, blood)

KOROBV, D.S.

Method for determining the occurrence forms of microelements in  
carbonaceous rocks. Uch.zap. SGU 74:245-247 '60. (MIRA 15:7)  
(Trace elements) (Rocks, Carbonate)

KOROBV, D.S.

Role of strontium in carbonate rocks as an indicator of saltiness  
of the ancient aquifers. Uch.zap. SGU 74:249-251 '60.

(MIRA 15:7)

(Rocks, Carbonate) (Markha Valley--Strontium)  
(Markha Valley--Saline waters)

KOROBov, D.S.; DAVYDOV, G.M.

Microgasometry of the clay solutions of deep wells in the Volga  
Valley portion of Saratov Province. Trudy NVNIIGG no.1:66-73 '64.  
(MIRA 18:6)

KOROEVOV, D.S.

Prospecting significance for manganese, strontium, and barium  
in the deep waters of the oil field in the Volga Valley portion  
of Saratov and Volgograd Provinces. Trudy NVNIIGG no.1:73-75 '64.  
(MIRA 18:6)

L 21419-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) APCC(a) JD  
 RECESSION NR: AP5001393

S/0310/64/000/009/0060/0060

AUTHOR: Korobov, G. (Engineer)

TITLE: With the investigators of the Lena River

B

SOURCE: Rechnoy transport, no. 9, 1964, 60

TOPIC TAGS: water traffic, river, fuel consumption, motor, hydrofoil/ Moskva motor

ABSTRACT: Experiments were conducted by the river-bottom investigating party of the Yakutskiy tekhnicheskii uchastok (No. 7 Yakutsk Technical Division) (led by A. S. Vysurin) on the adaptation of simple hydrofoils to the party's research effort. A duraluminum boat powered by a 10-hp "Moskva" type motor was equipped with a hydrofoil built and installed by the research group. In addition, an automatic device for regulating fuel consumption during changes in motor speed was built. Tests of the effectiveness of the innovations resulted in the following: the boat was able to travel 50 km in a little less than one hour, and fuel consumption per km was doubled. Use of the hydrofoil permitted a rise in the productivity in the work performed by the group. The innovations are useful also for servicing waterway stations and for other waterway work where speed of travel is essential. The

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L 21419-65

ACCESSION NR: AP5001393

research party is working on the installation of simple short wave radio stations for the purpose of maintaining boat-to-shore radio contact. Possible advantages mentioned are the increased facility of survey work and better fire-watching facilities. A picture of the boat equipped with the hydrofoil is given. The author praises the initiative of the participants. Orig. art. has: 1 photograph.

ASSOCIATION: Ciprorrechtrans

SUBMITTED: 00

ENCL: 00

SUB CODE: GO

NO REF SOV: 000

OTHER: 000

Cord. 2/2

KHOREV, Grigoriy Grigor'yevich, kand. ekon. nauk; BRASLAVSKIY,  
L.G., retsenzent; KOROBV, G.A., retsenzent

[Work organization in the producing section of a mine]  
Organizatsiia raboty na ekspluatatsionnom uchastke  
shakhty. Moskva, Nedra, 1965. 183 p. (MIRA 18:12)

KOROBOV, G. A.

KOROBOV, G. A. (Bakin Meat Combine imeni L. Beriya). Penicillin in veterinary practice.

So: Veterinariya; 23; 4; April 1946; Uncl.

TABCON

KOROBOV, G.B.; CHAYKIN, A.S.

Unit for removing knots from felled trees. Biol.tekh.-ekon.inform.  
Gos.nauch.-issl.inst.nauch.i tekhn.inform. 17 no.1:63-66 '64.  
(MIRA 17:2)

SOV-118-58-7-3/20

AUTHOR: Alyab'yev, V.I., Korobov, G.B. and Nikolayev, N.V., Engineers

TITLE: A Cable Crane for the Loading of Lumber by Means of a Trailing Winch (Kabel'-kran na pogruzke lesa pri lebedochnoy trelevke)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 7, pp 10-12 (USSR)

ABSTRACT: At the Krestetskiy lespromkhoz TsNIIME (the Kresttsy Lespromkhoz of the TsNIIME) an installation for the trailing and loading of lumber, has been successfully put into operation. The installation consists of a TL-5 winch and a cable crane with a special loading carriage. It is used in wood-cutting areas of 500 x 500 m or less. The loading operations are carried out by the cable crane, consisting of 2 booms and a steel cable (110 m long) between them, along which moves the loading carriage with the hoisting device (capacity - 6 tons or 8 cu m). The trailing of lumber is accomplished by a TL-5 winch. At

Card 1/2

SOV-118-58-7-3/20

A Cable Crane for the Loading of Lumber by Means of a Trailing Winch

present 12 loading installations with cable cranes are simultaneously operating. Labor efficiency is 30 - 40% higher than when inclined booms were used. The article presents a detailed description of the working procedure. There is 1 figure, 2 technical drawings, and 1 scheme.

1. Cranes--Operation
2. Lumber--Applications

Card 2/2

KSYUNIN, G.P.; KOROBV, I.A.

Machine for testing mining elevator cables. Zav.lab. 27 no.11:1421-  
1422 '61. (MIRA 14:10)

1. Novocherkasskiy politekhnicheskiy institut.  
(Testing machines) (Cables)

KOROBov, I.I.

133-8-5/28

AUTHORS: Afanas'yev, S.G., Shumov, M.M., Epshteyn, Z.D., Andryev, T.V., Beda, N.I., Korobov, I.I., Kostenetskiy, O.N., Lifshits, S.I., Rubinskiy, P.S. and Filipov, S.N.

TITLE: Production of steel in top oxygen blown convertors.  
(Vyplavka konverternoy stali pri produvke kislorodom sverkhmu).

PERIODICAL: "Stal'" (Steel), No.8, 1957, pp.693-700 (USSR).

ABSTRACT: After transfer of the Bessemer melting shop to the top oxygen blowing convertor practice, it produced 250 000 tons of steel. Summary of the operation of the melting shop is given in this paper. The melting shop consists of 3 convertors of 16.5 m<sup>3</sup> capacity, with a hydraulic tilting mechanism (Fig.1), with single layer lining from periclase-spinel bricks. Mean service life of the lining is about 150 heats. Lining bricks are ignited to 1680 for 8 hrs. The wear of convertor lining is shown in Fig.2. Water cooled tuyere for oxygen blowing is shown in Fig.3. Waste gas purification system consists of scrubber, ventury scrubber and cyclone (Fig.4). The efficiency of gas cleaning: dust content reduced from 40-50 g/m<sup>3</sup> to 0.2 - 0.5 g/m<sup>3</sup> (Table 1). The composition of the pig iron supplied from a mixer was as follows: Si 0.5-1.0%, Mn 1.0-1.7%, S 0.04-0.10%, P 0.07-0.11%. As a cooling

Card 1/4

133-8-5/28

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824810002-6"

Production of steel in top oxygen blown convertors. (Cont.)  
agent iron ore (Fe 49-61% and SiO<sub>2</sub> 5.6-13.3%) additions were used. As fluxes lime (burned in cupolas) and bauxite were used. The development of melting practice was previously described (Refs.1 and 2). The production of mild rimming steel is described in some detail. 20.0 to 21.5 tons of pig is transferred into the convertor and depending on the content of silicon 4.5-5.0 of lime, 1.0-1.5% of bauxite and 2.0-3.0% of ore are added before blowing. The first slag is removed after 5 min. of blowing and a new slag is made by adding 1.5-2.0% of lime and 0.5% of bauxite. For cooling of the reaction zone 200-300 l of water per heat is added to oxygen. During the first period water is supplied at a rate of 20 l/min (for 3 min), and in the second period 1 min after starting blowing for 5-6 min. Oxygen consumption is 55-58 m<sup>3</sup>/min (in the individual periods up to 70 m<sup>3</sup>/min). The distance between the tuyere and the surface of metal is 800-1200 mm depending on the melting period. The dependence of silicon content in final slags on time of slag removal for the duration of the first period (10 and 5 min) is shown in Fig.5. The dependence of the yield of good steel and its phosphorus content on the duration of the

Card 2/4

133-8-5/28



ZAYKOV, S.T., kand. tekhn. nauk; ~~KOROBOK, I.I.~~, inzh.; KOSTENETSKIY,  
O.N., inzh.; KRAVTSOV, P.Ya., inzh.; LIPSHITS, S.I., kand. tekhn.  
nauk; RUBINSKIY, P.S., inzh.; UMNOV, V.D., inzh.

Using limestone-ore briquettes during oxygen blast through pig  
iron in converters. Biul. TSNIICM no. 10:15-21 '58. (MIRA 11:7)  
(Bessemer process)

SOV/130-59-1-3/21

**AUTHOR:** Korobov, I.I., Manager

**TITLE:** Reducing the Sulphur-content of the Pig Iron in Blast-Furnace Smelting (O snizhenii soderzhaniya sery v chugune v protsesse domennoy plavki)

**PERIODICAL:** Metallurg, 1959, Nr 1, pp 7-9 (USSR)

**ABSTRACT:** The author suggests that by countering the harmful effects of sulphur in the blast-furnace process great improvements could be obtained in the Ukraine, but disagrees with recent suggestions (Refs 1,2,3) that acid burdening with external desulphurization should be adopted there. This would lead, he maintains, to an increase in the amount of direct reduction (already high) and a fall in the slag-forming and lower zone temperatures, giving higher coke rates and lower productivities. The fall in slag temperature would reduce the desulphurization. In support of his views the author mentions the unfavourable results obtained in 1939 when a furnace at his works operated with  $R_0 : SiO_2 = 0.94$ . He makes the following suggestions for reducing the deleterious effects of sulphur: burden preparation (maximal size of ore and sinter 35-40 mm, of

Card 1/2

SOV/130-59-1-3/21

Reducing the Sulphur-Content of the Pig Iron in Blast-Furnace  
Smelting

flux 50 mm, complete removal of fines) and coke preparation to give maximal reducibilities; blast temperature increases to 1000-1100°C in existing stoves and to 1300°C and over after suitable stove reconstruction; steps to even out blast-volume and temperature distribution between tuyeres; good mixing of burden and flux and use of dolomitized limestone to give at least 5.5% MgO in the final slag; development of methods of regulating slag temperature in the hearth. The author considers that the possibility of lowering slag basicity should be discussed only after full-scale trials which should be carried out in the next 1 - 2 years.

ASSOCIATION: Zavod im. Petrovskogo (Works imeni Petrovskiy)

Card 2/2

KOROBOV, I.I., inzh.; SUROVOV, V.I., inzh.; GONCHAROV, P.G., inzh.; ZHAK,  
A.M., inzh.

Process of making ferromanganese in the blast furnace. Stal' 21  
no.2:107-108 F '61. (MIRA 14:3)

1. Metallurgicheskiy zavod im. Petrovskogo.  
(Ferromanganese)

KOROBov, I.I.; SUROVov, V.I.; KOTOV, K.I.; YEFIMENKO, A.G.

Improvement of the auxiliary blast furnace equipment. Stal' 21  
no.5:397-402 My '61. (MIRA 14:5)

1. Dnepropetrovskiy zavod.im. Petrovskogo.  
(Blast furnaces—Equipment and supplies)

KOROBov, I.I.

The Petrovskii Metallurgical Plant is 75 years old. Stal' 22  
no.6:481-482 Je '62. (MIRA 16:7)

1. Direktor zavoda im. Petrovskogo.  
(Dnepropetrovsk—Iron and steel plants)

KOROBov, I.I., doktor technickych ved.

Progress in blast furnace iron and steel production. Hut  
listy 18 no.9:609-611 S'63.

KOROBov, I.I., doktor tekhn. nauk

Investigating processes in the blast furnaces of the  
Chelyabinsk Metallurgical Plant. Stal' 24 no.1:21-22  
Ja '64. (MIRA 17:2)



ZHIGULIN, V.I.; KOROBV, I.I., Geroy Sotsialisticheskogo Truda, laureat  
Leninskoy premii

Petrovskii Plant is 75 years old. Metallurg 7 no.5:4-7 My '62.  
(MIRA 15:5)

1. Direktor metallurgicheskogo zavoda imeni Petrovskogo  
(for Korobov). 2. Glavnyy inzhener metallurgicheskogo zavoda  
imeni Petrovskogo (for Zhigulin).  
(Dnepropetrovsk--Iron and steel plants)

KOROEVOV, I.I., Geroy Sotsialisticheskogo Truda, laureat  
Leninskoy premii

The Petrovskii Plant is 75 years old. Met. i gornorud.  
prom. no.4:3-6 JI-Ag '62. (MIRA 15:9)

1. Direktor Bryanskogo metallurgicheskogo zavoda imeni  
Petrovskogo.  
(Dnepropetrovsk--Iron and steel plants)

VERYATIN, U.D.; MASHIREV, V.P.; RYABTSEV, N.G.; TARASOV, V.I.;  
ROGOZKIN, B.D.; KOROBOV, I.V.; ZEFIROV, A.P., doktor  
tekhn. nauk, red.; MURADOVA, A.A., red.

[Thermodynamic properties of inorganic substances; a manual]  
Termodinamicheskie svoistva neorganicheskikh veshchestv;  
spravochnik. Moskva, Atomizdat, 1965. 459 p. (MIRA 18:12)

24139

Y/001/60/000/004/002/002  
D241/D301

16.8000 (1031, 1121, 1132)

AUTHOR: Korobov, Jurij, Assistant Professor

TITLE: Describing functions for some common non-linearities  
with saturation characteristics

PERIODICAL: Tehnika, no. 4, 1960, 775 - 781

TEXT: The describing-function method is applied to solving differential equations containing non-linearities which are real functions of the input amplitude only. The method is used because of the difficulty of obtaining general solutions to non-linear differential equations. It is capable of producing solutions for equations of particular importance in the automatic control field. The author first gives a brief description of the describing-function method and follows this by evaluating and plotting describing-functions for 7 different systems. 1) Saturation: For a sinusoidal input,  $x = \sin \omega t$ , the output from the block is a periodic function which, due to its symmetry, can be expressed as a Fourier series

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Describing functions for some ...

Y/001/<sup>24139</sup>60/000/004/002/002  
D241/D301

containing odd harmonics only. After substitution, the author arrives at

$$\frac{b_{2n+1}}{A} = \frac{2}{(2n+1)\pi} \left[ \frac{\sin 2n \omega t_1}{2n} + \frac{\sin 2(n+1)\omega t_1}{2(n+1)} \right]. \quad (1.4)$$

By definition, the describing-function is obtained when the value  $n = 0$  is put into the above expression, i.e.

$$G_n = \frac{b_1}{A} = \frac{2}{\pi} \left( \omega t_1 + \frac{\sin 2 \omega t_1}{2} \right) \quad (1.5)$$

where  $\sin \omega t_1 = \frac{E}{A}$ . 2) Insensitivity: A sinusoidal input again produces an output given by a Fourier series of the form

$$y = \sum_{n=0}^{\infty} b_{2n+1} \sin (2n+1) \omega t \quad (1.1)$$

and

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Describing functions for some ...

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$$b_{2n+1} = \frac{2}{\pi} \int_0^{\pi/2} y(\omega t) \sin(2n+1)\omega t d(\omega t), n=0,1,2... \quad (1.2)$$

From Fig. 7 it is seen that, up to  $\frac{\pi}{2}$  the function is defined by

$$y_1 = 0$$

$$0 < \omega t < \omega t_1$$

$$\sin \omega t_1 = \frac{a}{A} \quad (2.3)$$

$$y_2 = A \sin \omega t - a \omega t_1 < \omega t < \frac{\pi}{2}.$$

Substitution into equation (1.2) gives

$$\frac{b_{2n+1}}{A} = \frac{-2}{(2n+1)\pi} \left[ \frac{\sin 2n \omega t_1}{2n} + \frac{\sin 2(n+1)\omega t_1}{2(n+1)} \right] \quad (2.4)$$

and

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Describing functions for some ...

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D241/D301

$$G_n = \frac{b_1}{A} = \frac{2}{\pi} \left( \frac{\pi}{2} - \omega t_1 - \frac{\sin 2 \omega t_1}{2} \right). \quad (2.5)$$

This describing-function is also plotted. 3) "Hard Spring" characteristic: The function is defined by

$$y_1 = k_1 A \sin \omega t \quad 0 < \omega t < \omega t_1 \quad \sin \omega t_1 = \frac{a}{A} \quad (3.3)$$

$$y_2 = k_2 A \sin \omega t - (k_2 - k_1) \cdot a \quad \omega t_1 < \omega t < \frac{\pi}{2}.$$

After substitution, putting  $n = 0$  and rearranging, the describing-function is obtained:

$$G_n = \frac{b_1}{A} = \frac{2}{\pi} \left[ k \frac{\pi}{2} - (k - 1) \left( \omega t_1 + \frac{\sin 2 \omega t_1}{2} \right) \right], \quad (3.5)$$

where  $\sin \omega t_1 = \frac{a}{A}$  and  $k_1 = 1$ ,  $k_2 = k$ . 4) "Pre-loaded Spring" characteristic: From Fig. 11 the output is defined by

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Describing functions for some ...

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$$y = A \sin \omega t + a \quad 0 < \omega t < \frac{\pi}{2} \quad (4.3)$$

which results in

$$G_n = \frac{b_1}{A} = 1 + \frac{4}{\pi} (1/\frac{A}{a}). \quad (4.5)$$

All the characteristics considered so far were highly idealized. A closer approach to actual system behavior would be obtained by combining two or more simple characteristics. As all the systems had harmonic outputs with the same kind of symmetry, the same method is applicable to systems with composite nonlinearities based on the above. a) Insensitivity with saturation; b) Hard spring with saturation; c) Pre-loaded spring with saturation. The solutions to the above cases demonstrate that the describing function for compound non-linearities can be obtained by collecting the describing functions of the simple non-linearities, of which the compound case is composed. Where there is an element of saturation, the describing function falls off to the extent, to which the input amplitude

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Describing functions for some ...

<sup>24139</sup>  
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D241/D301

penetrates the saturation field. There are 21 figures and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: C.J. Savant, "Basic Feedback Control System Design", McGraw-Hill Co., New York, 1958. J.G. Truxall, "Automatic Feedback Control System Synthesis", McGraw-Hill Co., New York, 1955; H.D. Greif, "Describing Function Method of Servomechanism Analysis Applied to Most Commonly Encountered Non-Linearities", Trans. A.I.E.E., part II, 1953.

ASSOCIATION: Tehničkog fakulteta u Sarajevu (Faculty of Technology, University of Sarajevo)

Card 6/8



23039

Y/001/61/000/008/002/003

D246/D303

16,8000(1121,1132,1344)

AUTHOR: Korobov, Jurij, Engineer, Assistant

TITLE: Resonance discontinuity in non-linear automatic control systems

PERIODICAL: Tehnika, no.8, 1961, 1443-1449

TEXT: The article deals with the discontinuity or jump phenomenon in automatic control systems, particularly with the graphical presentation and mathematical treatment of this phenomenon. Resonance discontinuity or jump phenomenon which is a typical phenomenon of non-linear systems, represents a type of unstable response in automatic control systems. When a non-linear system is actuated by the sinusoidal signal of constant amplitude and variable frequency, with the assumption that the output oscillates with the frequency of the input signal, the automatic control system can show the jump phenomenon as shown in Fig. 1. While this phenomenon has been dealt with in the theory of non-linear oscillations, little attention has been paid to it in automatic control theory.

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(for Fig. 1 see next card)

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Y/001/61/000/008/002/003  
D246/D303

Resonance discontinuity...

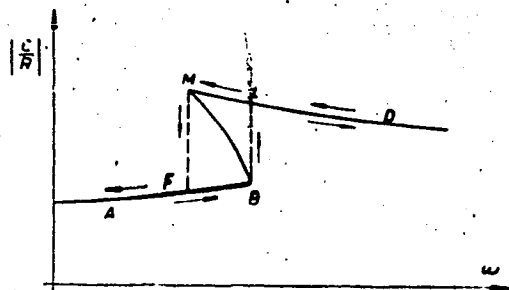


Fig  
St. 2

The system is actuated by a sinusoidal reference input  $r(t) = R \sin \omega t$  (1) and the loop has a non-linearity of saturation of static characteristics as shown in Fig. 3;

Little is known about the effect of the control loop parameter on the jump phenomenon and no instructions are available by which this phenomenon could be restricted to permissible limits through changes in the parameters. The author bases his treatment of the phenomenon on a closed-loop control system shown in Fig. 2.

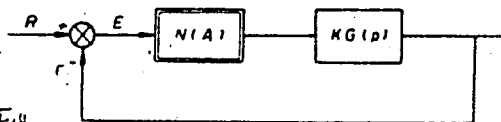


Fig  
St. 2

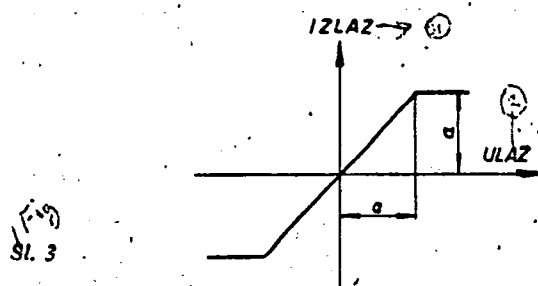
(for Fig. 3 see next card)

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D246/D303

Resonance discontinuity...



the descriptive function depends on the input amplitude into non-linearity. The actuating signal ratio of the system represents the basis of the graphical and mathematical treatment; from the absolute values with the appropriate grouping of the parameters the basic equation

Fig. 3. Legend: (1) Output (2) Input

(see below)

$$N(E)E = - \frac{a(\omega)c(\omega) + b(\omega)d(\omega)}{K[a^2(\omega) + b^2(\omega)]} E \pm \frac{\sqrt{[a^2(\omega) + b^2(\omega)][c^2(\omega) + d^2(\omega)]R^2 - [a(\omega)d(\omega) - b(\omega)c(\omega)]^2 E^2}}{K[a^2(\omega) + b^2(\omega)]} \quad (9)$$

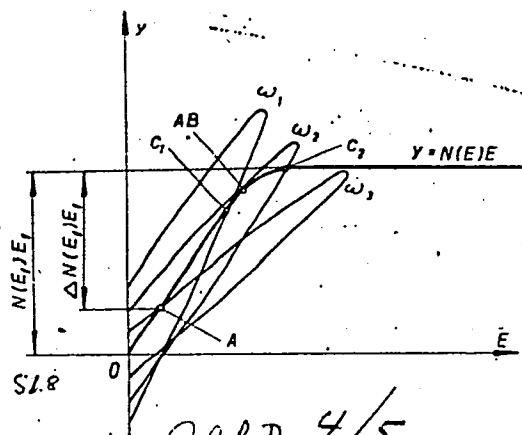
is derived, The  $N(E)E$  represents the non-linear element output in closed loop. The response of the closed non-linear loop to the input signal of constant amplitude and variable frequency and the causes of Card 3/5

Resonance discontinuity...

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D246/D303

23007

the discontinuity phenomenon are determined by placing in the same co-ordinate system the non-linearity output curve, as a characteristic independent of the control loop, and the non-linearity output curve as produced by the closed loop. The non-linearity output produced by the closed loop, regardless of the type of non-linearity and the form transmission of linear loop section, always represents a number of ellipses with variable parameters in the frequency function as shown in Fig. 8.



The intersecting points of the two mentioned curves are the direct indicators of the jump phenomenon region; the jump itself appears at frequencies of transition from several-point to one-point intersection of the characteristic curves. There are 8 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The references to English-language

CARD 4/5

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Y/001/61/000/008/002/003

D246/D303

Resonance discontinuity...

publications read as follows: C.J. Savant: Basic Feedback Control System Design, McGraw Hill Co., New York 1958; J.G. Truxal: Automatic Feedback Control System Synthesis, Mc Graw Hill Co., New York 1955.

ASSOCIATION: Tehnički fakultet (Technical Division), Sarajevo

SUBMITTED: September 15, 1960

X

Card 5/5

FOMIN, V.V.; MORGUNOV, A.F.; KOROBV, I.V.

Extraction of nitric acid with cyclohexane and methyl isobutyl ketone. Zhur. neorg. khim. 5 no.8:1846-1851 Ag '60.

(MIRA 13:9)

1. Moskovskiy khimiko-tekhnologicheskii institut im. D.I.Mendeleeva.  
(Ketone) (Nitric acid) (Cyclohexane)

KOROBV, Jurij, ing., assistant prof. (Beograd, Tikveska 3)

Method for an approximate determination of the frequency domain of the jump phenomenon of automatic control systems with saturation. Tehnika Jug 16 no.10:1817-1823 0 '61.

1. Technical Faculty of the University of Sarajevo.

33412

Y/001/62/000/003/004/004  
D283/D302

16,8000 (1013, 1132, 1329)

AUTHOR: Korobov, Jurij, Engineer, Assistant (Belgrade)

TITLE: Some examples of investigating the effect of control loop parameters on the jump-resonance phenomenon in automatic control systems with saturation

PERIODICAL: Tehnika, <sup>17</sup>no. 3, 1962, 522-528 and 536a

TEXT: The article describes investigations into the effect of control loop parameters on the jump-resonance phenomenon in feedback control systems with saturation, and with the transfer function containing only poles. The position of the characteristic curves represents not only the criterion for the appearance of the jump resonance, but also helps one to observe the effect of control loop parameters on the jump phenomenon. The author shows that saturation in the control loop cannot cause the jump resonance when the transfer function has only one pole. When the transfer function of a control system contains, however, a pair of poles one, of which is at the origin, the jump-resonance can occur due to

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Y/001/62/000/003/004/004  
D283/D302

Some examples of ...

saturation. It can be eliminated by decreasing loop gain. The author shows, further, that the distance of the pole from the origin will also affect the compensation of the jump resonance; appropriate distance will completely eliminate this undesirable phenomenon, despite the possible increase in the loop gain. Systems with an open-loop transfer function with a conjugate complex pair of poles can also show the jump-resonance if the frequency of the input signal is greater than the natural frequency of the system. By increasing the damping coefficient in such systems, the jump phenomenon can be eliminated. There are 11 figures, 8 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J.G. Truxal: Automatic Feedback Control System Synthesis, McGraw-Hill Co., New York, 1955.

ASSOCIATION: Tehnički fakultet (Division of Engineering), Sarajevo

SUBMITTED: September 15, 1960

Card 2/2



KOROBOW, Jurij, inž., asistent (Tikveska br. 3, Beograd)

Basic equation for the study of the resonance-jump phenomenon  
in the automatic-control systems with double nonlinearity.  
Tehnika Jug 17 no.5:Suppl.: Elektrotehnika 11 no.5:937-938  
My '62.

1. Tehnicki fakultet Univerziteta u Sarajevu.

KOROV, Jurij, inz., asistent (Tikveska 3, Beograd)

Descriptive function for the nonlinearity of the form of saturation in the automatic-control systems with the high-frequency secondary inlet. Tehnika Jug 17 no.5:Suppl.: Elektrotehnika 11 no.5:939-943 My '62.

1. Tehnicki fakultet Univerziteta u Sarajevu.

KOROBOK, N

~~KOROBOK, K.~~

Mute snapshots. Sov.foto 17 no.8:18-20 Ag '57. (MLRA 10:9)  
(Photography, Journalistic)

KOROBov, K.Ya.

Developing a pool of horizon D<sub>III</sub> of the Tuymazy oil-field. Nefteprom. delo no.583-7 '63. (MIRA 17:6)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut.

KOROBov, K.Ya.; MAMLEYEV, D.G.

Development of layer VI in the Ashit area of the Arlan oil field.  
Nefteprom. delo no.9:3-6 '65. (MIRA 18:10)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut i  
neftepromyslovoye upravleniye "Arlanneft".

KOROBov, K.Ya.; NIKOLAYEV, V.A.

Calculating the velocity of the displacement of water-oil contact.  
Nefteprom.delo no.11:3-4 '63. (MIRA 17:3)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti  
im. akademika Gubkina.

KOROBov, K.Ya.; GLOGOVSKIY, M.M.

Studying reservoir nonuniformity on the basis of permeability.  
Trudy MINKHiGP no.48:104-110 '64. (MIRA 18:3)

KOROBV, K.Ya.

Calculating the flooding rate. Trudy MINKHIGP no.48:111-116 '64.  
(MIRA 18:3)



KOROBV, L.

At the mountaneous area of the Irtysh River. NTO 3 no.4:24-26  
Ap '61. (MIRA 14:3)  
(Irtysh Basin--Hydroelectric power stations)

KOROBV, L.

The art legacy of D. Debabov. Sov. foto 23 no.3:18-21 Mr '63.  
(MIRA 16:4)  
(Debabov, Dmitrii Georgievich)

L 10976-66 EWT(1)/EWA(1)/EWA(b)-2 JK

ACC NR: AP5028391

SOURCE CODE: UR/0016/65/000/009/0021/0024

AUTHOR: Yatsenko, A. F.; Korobov, L. I.; Shafran, L. M. 44/55 35 B

ORG: Basin Sanitation and Epidemiological Station of the Black Sea-Azov Sea Maritime Health Department, Odessa (Basseynovaya sanepidstantsiya Chernomorsko-Azovskogo vodzdravotdela)

TITLE: Smallpox immunity in sailors

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1965, 21-24

TOPIC TAGS: infective disease, disease incidence, epidemiology

ABSTRACT: The authors studied the state of smallpox immunity of Soviet sailors and compared it with the immunity of sailors of other countries of Europe, Asia, and Africa. As a result of the investigation, the authors establish that the percent of those reacting positively to inoculation varies in relation to the number of revaccinations in the past, the age of the person inoculated, and the individual reactivity of the person. Appreciable differences were noted between the number of positive reactions in Soviet and foreign sailors: 26% of the Soviet sailors had a positive reaction, 73.2% of the European sailors, and 61.9% of the Asian and African sailors. The percent of those who had a positive reaction in the 30 to 50-year-old age group was much higher (17 — 35% among Soviet sailors and 60 — 70% among foreign sailors) than those aged 20 — 30 years. The author concludes that great care should be

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UDC:616.912-097.3-057:656.61

L 10976-66

ACC NR: AP5028391

taken to prevent the importation of smallpox into the USSR by the crew and passengers of foreign vessels. Orig. art. has: 1 table

SUB CODE: 06 / SUBM DATE: 30Apr64 / ORIG REF: 009

Card

*my*  
2/2

KOROBV, L.N.; TSYLEV, L.M.; SHCHEDRIN, V.M.

Problems of the methods of investigating the kinetics of iron  
reduction from its oxides in molten ores by reducing gases.  
Stal' 25 no.8:867-871 S '65. (MIRA 18:9)

OVCHININSKIY, Nikolay Vladimirovich; TURKIN, Aleksandr Vladimirovich;  
KOROBOV, Lev Nikolayevich; LYUDOGOVSKIY, G.I., kand. tekhn.  
nauk, otv. red.; PEVZNER, G.Ye., red. izd-va; SIMKINA, G., tekhn.  
red.

[Expansion of ferrous metallurgy in the central regions of the  
U.S.S.R.; importance for the national economy of the industrial  
utilization of the Kursk Magnetic Anomaly] Voprosy razvitiia chernoi  
metallurgii v tsentral'nykh raionakh SSSR; narodnokhoziaistvennoe  
znachenie promyshlennogo osvoeniia Kurskoi magnitnoi anomalii. Mo-  
skva, Izd-vo Akad. nauk SSSR, 1961. 137 p. (MIRA 14:9)

(Kursk Magnetic Anomaly—Iron mines and mining)

(Metallurgical plants)

KOROBV, M.

First steps toward model production administration. Sots.  
trud 8 no.7:79-84 J1 '63. (MIRA 16:10)

1. Glavnyy ekonomist zavoda "Frezer".

KOROBov, M.

Reorganizing the establishment of technical standards in a plant.  
Sots. trud 7 no.11:91-93 N '62. (MIRA 15:12)

1. Nachal'nik otдела truda i zarabotnoy platy Gomel'skogo zavoda  
sel'skokhozyaystvennykh mashin.  
(Gomel'--Agricultural machinery industry--Production standards)



AUTHOR: Korobov, M.A., All-Union Aluminium-Magnesium Institute. <sup>286</sup>  
 TITLE: Distribution of the current in the electrodes of an aluminium electrolyser. (Raspredelenie toka v elektrodakh alyuminievogo elektrolizera.)  
 PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals), 1957, No. 1, pp. 49 - 56, (U.S.S.R.)

ABSTRACT: In this article, some general information is given on the distribution of current in the electrodes obtained in tests on aluminium electrolysers of various constructions. The distribution of the current across the electrolyser is also considered briefly. Current distribution in the anode was found to be uneven, there being horizontal components of the current which are directed from the periphery towards the centre and from the centre to the ends with side and top attachment, respectively, of the leads. Ways of decreasing the horizontal components and the fall in potential in the anode are indicated. Current distribution in the cathode is also uneven, and horizontal components of the current in the metal arise because of this. A connection has been found between process conditions and the horizontal component directed transversely across the bath. Design changes to improve current distribution are suggested.

There are 7 figures and 3 references, 2 of which are Russian.

AUTHOR: ~~APPROVED FOR RELEASE: 06/14/2000~~ <sup>138-2-9/22</sup> CIA-RDP86-00513R000824810002-6  
 TITLE: Influence of the Width of the Anode of an Aluminum Electrolyzer on the Temperature and Electric Fields. (Vliyaniye shiriny anoda alyuminievogo elektrolizera na temperaturnoye i elektricheskoye polya)

PERIODICAL: Tsvetnyye Metally, 1957, No. 2, pp. 52 - 58 (USSR)

ABSTRACT: Increasing electrolyser ratings have led to the use of wider anodes, which have several disadvantages: bad current distribution in the anode (with side leads) and possible overheating of both anode and electrolyte in the central position. In the present article the distribution of current in the potential and temperature fields of anodes are examined for anode widths of 1.75 and 2.5 m with side leads. Potentials were measured with the aid of a special feeler (shown diagrammatically) and assemblies of thermocouples were used for temperature measurements: both devices were inserted through several steel tubes. Graphs show potentials and temperatures at various levels in the anode for each thickness and each tube and diagrams of temperature and potential fields, constructed from the results are shown. The parameters of the fields for the upper and lower parts of the anodes are tabulated. These calculations are checked and the thermal conductivity of the anode is shown

AUTHOR: Korobov, M.A.

136-5-9/14

TITLE: Electrical and thermal characteristics of aluminium-electrolyzer anodes with overhead current supply. (Elektricheskie i teplovye kharakteristiki anodov alyuminievykh elektrolizerov s verkhim tokolodvodom.)

PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals) 1957, No.5, pp. 55 - 63 (U.S.S.R.)

ABSTRACT: In this communication mutual effects of some technological, electrical and thermal characteristics which are known to affect the quality of anodes with overhead current supply and the operation of electrolyzers are examined. Measurements of temperature and electric fields in such anodes are reported and are used in equations relating the main parameters. Results are presented graphically, calculated and observed values being compared. Results for normal and wide anodes show that the use of a wider anode with overhead input of current and correct selection of technological parameters does not worsen the thermal and electrical fields. From the calculations and experiments it is concluded that there is an upper limit to the elevation of the pins for any given bath-construction beyond which the anode overheats. Use of 25-30% more pins is recommended and the testing of a 6-row pin distribution in the anode

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SOV/137-58-8-16640

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 56 (USSR)

AUTHORS: Lysenko, L.N., Svoboda, R.V., Korobov, M.A.

TITLE: Features of the Baking of Electrodes with Power Lead at the Top (Osobennosti obzhiga elektrodov s verkhnim tokopodvodom)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 8, pp 80-86

ABSTRACT: Preparation for the baking of the anode is performed during the period of completion of the assembly of the bath and consists of the following operations: Installation of a metal box to shape the lower portion of the anode, installation of the shell of the anode, of a temporary Al mantle and of rods (R), charging of the anode mass, filling up the space between anode and side lining with loose C materials. At the same time rods are mounted in the anode. To the bottom of these rods special stands are mounted to serve as conductors between R and bottom during the initial period of baking. After the coked anode has been formed, the need for the stands disappears. The shaping of the anode is performed by charging in liquid anode mass. The bath is shunted by shunting resistors. Operations performed during the baking include increasing the current,

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### Features of the Baking of Electrodes with Power Lead at the Top

adjustment of the increase in the sinter cone (SC), movement of the R, and monitoring of the baking process. The current is increased by shutting off the shunting circuits, and adjustment takes place by disconnecting the R in the region of the high SC. As the SC grows, briquettes of anode mass are charged into the anode mass. It is essential that the layer of liquid anode in the zone of maximum SC be 150-200 mm thick. At the end of the baking period, it is necessary to shift the R to their proper levels, this being done first with the disconnected R in the zone of high SC. During the baking process it is necessary to monitor the height of the SC, the current in the R, the level of the liquid anode mass, the current in the anode, and the voltage. The major indices of the baking process are: Anode quality, electric-energy consumption, working conditions, and labor costs. The minimum expenditure of electrical energy ( ~ 25,000 kwh) for baking the anode of a 72,000-amp cell is attained by rapid increase in current without the shoveling-in of loose anode material. The baking of a series of top-fed cells differs from the baking of individual cells by the possibilities afforded for more uniform increase in current.

1. Anodes (Electrolytic cell)--Preparation      2. Anodes (Electrolytic cell)--Properties      I.G.  
3. Anodes (Electrolytic cell)--Costs

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SOV/137-58-7-14530

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 84 (USSR)

AUTHOR: Korobov, M.A.

TITLE: Major Directions to be Taken in Improving the Quality of the Anodes of Top-powered Aluminum Cells (Osnovnyye napravleniya uluchsheniya kachestva anodov alyuminiyevykh elektrolizerov s verkhnim tokopodvodom)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 17, pp 15-19

ABSTRACT: Tests of experimental top-powered cells show that the quality of the anodes in top delivery of current remains lower than in side delivery. This is explained chiefly by the formation of a porous anode (plug) at the point of immersion occupied by the anode rods. The quality of the plugs is affected decisively by the composition of the mass flowing into the depression, and the temperature in the zone of coke formation. Investigations show that when the level of the liquid anode mass (AM) in the anode is 26-30 cm and the temperature of its surface is 150-200°C, the upper layer of the anode contains up to 70% pitch and 30% dry mix consisting of fines and dust. When the mass undergoes random flow into the anode-rod

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SOV/137-58-7-14530

Major Directions to be Taken in Improving the Quality of the Anodes (cont.)

depression, the middle and upper portions of the mass consist of 72-74% of pitch and 28-26% of coke dust (0.075 mm fraction). Under conditions of rapid coking at 700-850°, such a mass yields a porous plug having poor connection with the main body of the anode. In cases of forced immersion of the mass into the depression beneath the anode rods, the composition of the AM is close to its initial composition through the full height of the plug. From this it follows that the design of the anode device should make possible ready immersion in this manner. The thickness of the AM layer and the temperature at the surface of the liquid mass exercise a substantial influence on the quality of self-baking anodes. When the level of the liquid AM is raised from 17 to 29-30 cm, the quality of the anode improves, the consumption of AM is reduced, and the porosity and friability of the anode are diminished. An increase in the level of the liquid AM and reduction in its surface temperature reduce the quantity of volatiles (by as much as 3-5% of the total) liberated from the surface of the anode. The bulk of the gases formed on coking pass through the sintered anode heated to high temperature, and undergo cracking with formation of free C, rendering the electrode less porous and more highly conducting and dense.

- |                                    |   |      |
|------------------------------------|---|------|
| 1. Electrolytic cells--Development | 2. Anodes (Electrolytic cell)               | I.G. |
| Card 2/2 --Materials               | 3. Anodes (Electrolytic cell)--Test results |      |

KOROBov, M.A.

Current distribution in the electrodes of an aluminum electrolyzer.  
TSvet.met.30 no.1:49-56 Ja '57. (MIRA 10:3)

1.Vsesoyuznyy alyuminiyevo-magniyevyy institut.  
(Aluminum--Electrometallurgy) (Electrodes)

**KOROBov, M.A.**

Effect of the anode width in an aluminum electrolyser on the  
temperature and electric fields. TSvet. met. 30 no.2:52-58 P '57.  
(MIRA 10:4)

1. Vsesoyuznyy alyuminiyevo-magniyevyy institut.  
(Aluminum--Electrometallurgy)



KOROBV, M. A.: *Cond* Master Tech Sci (diss) -- "Investigation of the electrical and thermal fields of the anode of an aluminum electrolyzer". Leningrad, 1958. 15 pp (Gosplan USSR, Glavniiprojekt [Main Designing], All-Union Aluminum and Magnesium Inst VAMI), 150 copies (KL, No 1, 1959, 119)

SOV/136-58-11-11/21

AUTHORS: Korobov, M.A.

Mashovets, V.P.

TITLE: Modelling the Electrical Field of an Aluminium-Electrolyzer Anode (Modelirovaniye elektricheskogo polya anoda aluminievogo elektrolizera)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 11, pp 60-66 (USSR)

ABSTRACT: In modelling the electrical field of an anode of an aluminium electrolyzer one important difficulty is the production of a medium with a variable electrical conductivity. The authors have adopted the technique of M.F.Dorgamadshi (ref.2) in which change in conductivity is produced by the introduction of non-conductivity (ebonite) spheres into the conducting liquid. A stepwise gradation of conductivity, based on data from a working electrolyzer (ref.4) was used. For modelling pins with the required conductivity thin enamelled copper wire was wound on a non-conducting model of the pin, the outside surface of the wire then being carefully cleaned; by using different gauges of wire changes in conductivity due to temperature changes were represented. Anodic

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SOV/136-58-11-11/21

## Modelling the Electrical Field of an Aluminium-Electrolyzer Anode

polarization arising in copper sulphate solution was used to represent the contact resistance between the pin and the body of the anode, the value obtained with a solution containing 160 g Cu SO<sub>4</sub> and 10 ml of H<sub>2</sub>SO<sub>4</sub> (density 1.8 g/cm<sup>3</sup>) per litre being sufficiently accurate. It was found preferable when using the installation (fig.1) to assume even burning of the anode and constant composition of the primary anode gas. Resistance boxes and a wire gauze electrode were used to produce the boundary conditions at the bottom surface of the anode, the resistances produced being about 100 times those of the region being modelled and a closer approach to reality being obtained by grading the resistances. The size scale of the model was 1/5, the corresponding values for the conductivity of the anode and the pin being 1/1800 and for the contact conductivity 1/360. The correctness of the scaling factors was supported by the fairly close agreement between the model and practical relations between the current strength in the pins and the distance from the pins to the bottom of the anode (fig.2).

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Modelling the Electrical Field of an Aluminium-Electrolyzer Anode

The changes in potential-drop in the anode as determined in the model are shown as functions of position in the anode for various anode widths and pin arrangements for lengths of the working part of the pins of 50 cm (fig.3), 75 cm (fig.4) and 100 cm (fig.5). The authors assess the accuracy of the potential-drop estimates made by their technique at 3-5% and they have shown that with side leads the fall in the voltage in the anode and the difference of potentials at its bottom surface fall with increasing pin length and rise with increasing anode width. There are 4 figures, 1 table and 6 references, all Soviet.

ASSOCIATION: VAMI

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